NEWSLINE

Published for the employees of Lawrence Livermore National Laboratory August 31, 2007 Vol. 32, No. 27 What's INSIDE lellar science **TRANSITIONING** TO **DECISION TIME** PAGE 2 **CARBON** NANOTUBES FOR **BIOENGINEERING** PAGE 5 aborator FY08 SALARY **PROCESS** KICKS OFF

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2007 TRANSITION NEWS



Hourly paid employees to vote on alternative work schedules

Hourly paid employees assigned to alternative workweek schedules will be asked to vote on whether they wish to continue working such schedules.

The vote is a result of the Laboratory's transition from management by a public entity to the private sector. When the Lab implemented alternative work schedules (AWS) – a 9/80 or 4/10 workweek – in 2002, no vote was necessary under the Lab's management by the University of California.

But with the Lab transitioning to management by Lawrence Livermore National Security, LLC (LLNS), hourly paid, or non-exempt, employees are required by the state of California to vote whether they wish to continue working the alternative schedules.

LLNS wants to continue the current AWS, necessitating a vote from employees before the Lab transitions to new management on Oct. 1.

An approved alternative workweek allows non-exempt employees to work more than eight hours per day without requiring the payment of daily overtime. The vote only applies to hourly paid employees currently working an alternative schedule. Exempt or salaried employees do not earn overtime and are not affected by an alternative schedule as it relates to pay. Therefore, they are not required to participate in the election.

The vote will take place via paper ballot between today (Aug. 31) and Sept. 14. Employees will be divided into work units for the purpose of the election. Work units will consist of non-exempt employees who have previously signed AWS agreements and are currently working an alternative schedule.

Each work unit must pass the alternative workweek schedule by a two-thirds majority vote in order for the AWS to continue beyond Oct. 1. Ballots not cast will be counted as "no" votes

Ballots will be sent via Lab mail starting today (Aug. 31). If the individual work units approve the alternative work schedules, employees within that unit may continue on



 $J_{\text{ACQUELINE}} \ M_{\text{C}}B_{\text{RIDE}}/N_{\text{EWSLINE}}$

Sharon Lyon (center) of LLNS answers questions from Steven Knudsen and Michael Pitcock after the AWS briefing at the Central Cafeteria on Wednesday.

their current schedules. If the schedule is not approved, non-exempt employees must return to a 5/40 workweek schedule beginning Oct. 1. Exempt employees currently on an approved AWS will be able to continue their schedules

Employees currently working a 5/40 shift will not be required to adjust their schedules. Flexible 5/40 schedules, such as a 9/9/9/9/4 that

require hourly employees to work more than eight hours a day, will not be available after Oct.

1. There will be no open enrollments for non-exempt employees in October.

If the alternative workweek is approved, non-exempt hourly paid employees still will receive overtime should they work beyond the nine-hour schedule for 9/80 workweeks, or 10 hours under a 4/10 or 40 hours in a workweek.



New questions about 403(b) and UC service credit

I plan to leave my 403(b) and DCP with UC. How do I access my account after Sept. 30 2007 to make changes, to view balances, etc.?

Fidelity Investments Tax-Exempt Services Company (FITSCo) will continue to provide record keeping and account services for these plans. You can contact them at 1-866-682-7787 or visit www.netbenefits.com. Note that in order to leave your money in these plans your account balance in each individual plan (e.g., 403(b), 457(b) or DC Plan) must be \$2,000 or more after transi-

tion. After the transition you will no longer be able to contribute to these plans, but you will be able to roll over money into the plans and move money among all the investment options in the plans.

If I choose TCP2 and freeze my UC service credit, how would my monthly retirement payment be calculated when I decide to retire from UC a few years later (say, on Sept. 30, 2010)? I know the service credit will be frozen, but will the age factor and HAPC be adjusted in the formula? How will the HAPC be determined? Will the COLA be included in the calculation of the HAPC at the time of retirement from UC? Or, will the HAPC

remain the same as that on Sept. 30, 2007?

If a UC employee is a vested member of UCRP (i.e., has five or more years of service credit) and leaves UC employment, the member may elect inactive status and retire at some date in the future. These inactive members are eligible for a cost of living adjustment (COLA) of up to two percent when compounded annually. When the member retires, the COLAs are added to the member's HAPC and then the retirement benefits (monthly income or lump sum cashout) are calculated. UC will use the age factor as of the date you retire.

PEOPLE PLACES PROCESSES

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Summary of Lab employee compensation packages on the Web

Lawrence Livermore National Security, LLC (LLNS) has posted to its Website a summary of the compensation packages offered to Laboratory employees, as well as two generic retirement estimates.

The documents, titled "Online Benefits Summary Content," "Generic Web Retirement Estimate" and "Generic Web Retirement Estimate for Safety Members," are available under the Benefits tab on the LLNS Website at www.llnsllc.com

The guides were designed to help employees make decisions when responding to their LLNS offer letters. Offers of employment were sent to Laboratory employees in July. Employees have until Sept. 17 to make a decision via the LAPIS Website at https://psapp.llnl. gov/. All employees must access the site to accept or decline their offer. If they do

nothing, the offer becomes invalid after Sept. 17.

The summary offers a breakdown in health and welfare plans, flexible spending accounts, employee assistance, life insurance, disability, legal and other plans offered under both total compensation packages, known as TCP1 and TCP2.

The document also offers descriptions of the retirement and retiree benefit plans, and their differences between TCP1 and TCP2, along with retirement healthcare benefits.

The generic estimates offer a series of charts for the general population as well as safety members (firefighters, paramedics). The estimates were developed for a sample employee with five, 10 or 20 years of service credit, based on an annual salary of \$80,000.

Each chart provides a relative value of the benefits from TCP1 and TCP2, based on age of retirement and continued service credit.

Examples of joint and contingent annuities also are provided, along with LLNS contributions to retirement healthcare.

A generic estimate for a sample employee with 10 years of service

| 10 YEARS OF SERVICE CREDIT | | | | | | |
|---|--|---|---|---|---|--|
| If your current age is | | 35 | 40 | 50 | 60 | |
| And you | | | | | | |
| Terminate or retire on Oct. 2, 2007, you would receive this monthly amount at age 60 | TCP1 TCP2 ² TCP2 ³ | \$2,700 \$2,700 ¹ \$2,700 ¹ | \$2,440 \$2,440 ¹ \$2,440 ¹ | \$2,000 \$2,000 ¹ \$2,000 ¹ | \$1,630 \$1,630 ¹ \$1,630 ¹ | |
| Work only 5 more years, you would receive this monthly amount at age 60 (at age 65 if you are currently age 60) | TCP1 TCP2 ² TCP2 ³ | \$4,100 \$3,540 \$3,980 | \$3,710 \$3,070 \$3,400 | \$3,040 \$2,350 \$2,530 | \$2,740 \$2,130 \$2,310 | |
| Work until age 50 and retire (or retire now if you are age 50 or older) you would re- ceive this monthly amount. | TCP1 TCP2 ² TCP2 ³ | \$2,720 \$2,080 \$2,680 | \$1,870 \$1,460 \$1,780 | \$720 \$720 ¹ \$720 ¹ | \$1,630 \$1,630 ¹ \$1,630 ¹ | |
| Work until age 60 and retire, you would receive this monthly amount. | TCP1 TCP2 ² TCP2 ³ | \$11,660 \$6,330 \$8,260 | \$8,610 \$4,740 \$5,970 | \$4,250 \$2,710 \$3,100 | \$1,630 \$1,630 ¹ \$1,630 ¹ | |

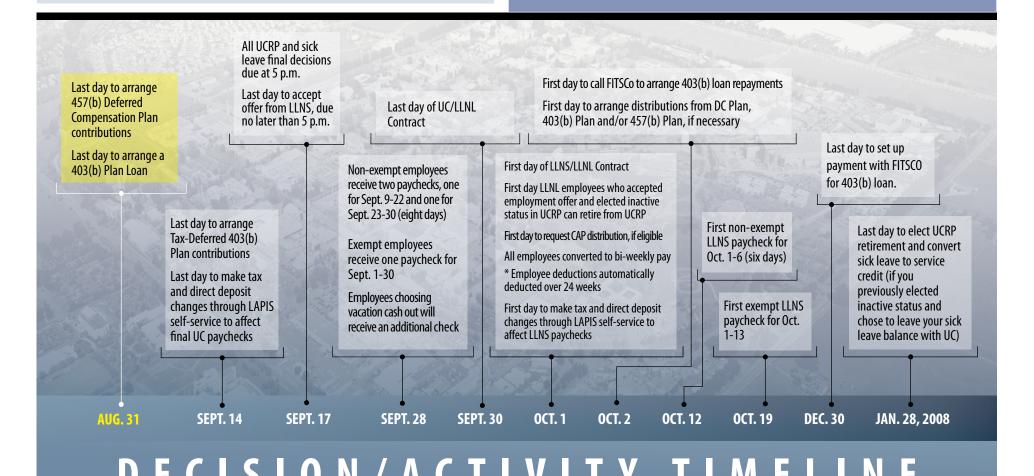
- ¹This represents only the vested UCRP benefit. No LLNS TCP2 Defined Contribution 401(k) benefit would have accumulated yet.

 ²This estimate is based on the employer match and service-based contribution only, including the vested UCRP benefit.

 ³This estimate is based on the employer match and service-based contribution, plus 6 percent employee contribution, including the vested UCRP benefit.

UC releases health and benefits transition document

UC has released the "UC Health & Welfare Benefits Transition" document, explaining how your University of California-sponsored benefits are affected when your UC employment ends, including claim deadlines and coordination of care information. Generally, coverage in UC-sponsored benefit plans will stop when UC employment ends on Sept. 30. The document is posted on the LLNL Transition website. Employees can also get answers to your questions by consulting the detailed booklets for each benefit plan posted on At Your Service (atyourservice.ucop.edu) or from the LLNL Benefits Office. See NewsOnLine for links to the related charts.



* Employees will receive 26 paychecks over the year, but employee deductions, such as medical, will only be taken from 24 paychecks.

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SCIENCE NEWS

NIF experiments may answer cosmic questions

By Charles Osolin NIF

What happens inside an exploding supernova? What is dark energy? How were the heavy elements formed? What happens to the materials in the core of a giant planet?

These are just a few of the cutting-edge questions that scientists at the Laboratory and researchers from around the world are hoping to begin to answer when basic science experiments begin as early as 2010 at the National Ignition Facility (NIF).

As the world's largest and highest-energy laser, NIF will be uniquely capable of producing temperatures, pressures and densities in its target chamber that are similar to those in the cores of stars, supernovae and giant planets, as well as inside exploding nuclear weapons. Scientists hope the data they can obtain from NIF experiments will provide new insights into how the universe operates at both the smallest and the largest scales.

To learn more about NIF's promise, about 70 scientists from the United States and Europe gathered at the Martinelli Center on Greenville Road this week for a NIF nuclear astrophysics workshop, the first in a series of "Science Use of NIF" workshops that will help lay the groundwork for NIF's evolution into a premier international center for experimental science early in the next decade.

"We have every intention of turning NIF into an international user facility," NIF Science Director Richard Boyd told the group. "Our intent is to encourage world-class physics and world-class scientists to do research at NIF."

In his welcoming remarks, NIF Associate Director Ed Moses challenged the scientists to find ways to use NIF for "really revolutionary" research, the kind that wins major scientific prizes. "NIF is not only the path to national security through stockpile stewardship, to energy security through fusion energy, but it's also the path to great science that may changes the nature of our understanding of the cosmos," Moses said. "We are on the verge of making the visions of yesterday our reality."

Along with discussions about how to prepare proposals for NIF shot time and descriptions of the diagnostic equipment currently being installed in the facility, the workshop delved into such topics as



JACQUELINE McBride/Newsline

National Ignition Facility Science Director Richard Boyd (left) discusses astrophysics research on NIF with (left to right) Peter Thompson of the United Kingdom's Atomic Weapons Establishment, Michael Paul of Hebrew University in Jerusalem and Karl Van Bibber of LLNL's Physics and Advanced Technologies Directorate during this week's nuclear astrophysics workshop at the Martinelli Center on Greenville Road.

"Pair Creation and Annihilation in the Vicinity of Black Holes," "Astrophysical Reaction Rate Calculations" and "Measuring Astrophysical S-factors in Hot and Dense Plasmas." After the presentations, breakout sessions were held to brainstorm experimental topics and discuss new diagnostic devices that may be required for the experiments.

Bruce Remington, group leader in the NIF high energy density (HED) program, said many topics of interest to astrophysicists, such as stellar envelope opacities, protostellar jet dynamics and molecular cloud radiation dynamics, are "uniquely accessible in HED facilities like NIF." He noted that a recent National Research Council report listing a series of questions that are fundamental to understanding how the universe works helped to mobilize LLNL scientists to use NIF to look for answers.

"There's clearly a place for us to participate in this style of big-question physics, high-impact science, chemistry and materials science," Remington said. "We have a dual responsibility to benefit society as scientists addressing basic science questions, along with and complementary to our programmatic work at the national labs."

NIF is currently on track for completion in 2009, with the first attempts at achieving ignition scheduled for 2010. While it will be a couple of years before NIF is ready to issue a general call for research proposals, three research teams already have been formed and received seed grants from the Laboratory to design experiments and targets for NIF shots. The groups will study the response of materials to enormous pressures such as those found in the interiors of Jupiter and Saturn; the kinds of turbulent hydrodynamic processes that affect the evolution of supernovae; and the laser-plasma instabilities that occur when lasers interact with large-scale plasmas. LLNL scientists will serve as liaisons between the groups and NIF to help work through fielding their experiments and interpreting the results.



ON THE COVER: The Crab Nebula is now known to be a supernova remnant, an expanding cloud of debris from the death explosion of a massive star. Composed of 24 exposures taken in October 1999, January 2000, and December 2000, this Hubble Space Telescope mosaic spans about 12 light years. Colors in the intricate filaments trace the light emitted from atoms of hydrogen, oxygen and sulfur in the debris cloud. One of the most exotic objects known to modern astronomers, the pulsar is a neutron star, the spinning remnant of the collapsed stellar core. The Crab Nebula lies about 6,500 light-years away in the constellation Taurus.

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SCIENCE NEWS

Nanotubes offer hope for repair of joints

By Nancy Garcia Newsline staff writer

Sima Bahadori knew that even if she became a teacher instead of a scientist, she wanted to first make hands-on use of the knowledge she was learning as a biology student at Cal State Hayward. She landed an internship at the Laboratory's pilot aspiring teacher program in

the summer of 2007, investigating the potential use of carbon nanotubes as tissue scaffolding for cartilage growth and joint regeneration.

Nearly 500,000 hip and knee replacements are performed annually in the United States, relieving pain and restoring mobility to patients whose joints have been damaged by arthritis or other illness or injury. Smooth, cushioning cartilage will normally help joints move freely and absorb impact. However, when damaged, cartilage does not sufficiently restore itself, leading to more pain and degeneration. The limited repair ability of the native tissue has propelled interest in creating a biological replacement for damaged cartilage. In tissue engineering, cells are grown with scaffold materials to create a biologically functional replacement. To date, however, the science has shown that cultured cells do not produce enough strengthinducing matrix molecules, such as collagen, for the cultured tissue to bear weight in a joint replacement.

"It would be crushed within a few steps," said
Bahadori's research team leader, Nadeen Chahine. She
devised the project knowing that carbon nanotubes
had only been minimally explored for use in bioengineered tissue since their

development in the 1990s.

Measuring 50,000 times smaller than a human hair, nanotubes have matured from a laboratory curiosity, and even a speculative science fiction ploy featured in such books as Arthur C. Clarke's "The Fountains of Paradise." Their promise was addressed in the 1959 talk by the late physicist and lecturer Richard Feynman, "There's Plenty of Room at the Bottom." They have now become a commercial reagent available to explore in real-world applications.

Feynman told fellow members of the American Physical Society, who were gathered for their annual meeting at Caltech, "It is a staggeringly small world that is below. In the year 2000, when they look back at this age, they will wonder why it was not until the year 1960 that anybody began seriously to move in this direction."

Chahine brought the nanotube project to the Laboratory in the fall of 2006, when she accepted a three-year Lawrence Fellowship. That same year, an unprecedented application of nanotubes may have contributed to Floyd Landis' victory in the Tour de France. The carbon-fiber bicycle frame he rode had nanotubes added to resin that bound the fiber, contributing strength while conserving weight.

Chahine has a doctorate in biomedical engineering from Columbia University. She was drawn to the question of how cartilage in a healthy joint maintains tensile strength far beyond the possibilities of any manmade material, bearing repeated stress for a lifetime. With the opportunity to lead her own research projects over the course of three years of the prestigious post-doctoral fellowship, she would like to understand what factors generate tissue that performs so well in nature.

"Just by walking, you put two to three times your body weight on



JACQUELINE McBride/Newsline

Sima Bahadori, seated, sections the tissue construct to examine its morphology, integrity and composition. To the left is Gabriela Loots and on the right is Nadeen Chahine.

your knee," she explained. "If you jog or run, the load can be anywhere between four and eight times your weight".

Carbon nanotubes are hollow cylinders of graphite about a nanometer in diameter. They form spontaneously in vapor from arc welding, and can be manufactured, too. The molecular structure of their cross-linked atoms somewhat resembles the pattern of a cyclone fence. Wrapped around a hollow space, the thin sheets create narrow tubes that are more strong than dense.

Carbon nanotubes are attractive for bioengineering due to their potential to be chemically compatible with living tissue. This interdisciplinary research at the Laboratory takes place in the Center for Micro and Nano Technology, where such crosscutting challenges are the norm. Director Anantha Krishnan, Chahine's mentor, calls the center's 50 technical members "quite a forward-looking group." Their contributions can be found in a variety of Lab programs, from weapons and fusion energy to sensing and high-speed optical data acquisition. Besides intellectual capital, the center houses capabilities such as a class 100 clean room that can pattern silica, glass and polymers. Overall, activities there are split between emerging and applied research

Collaborations often involve Stanford, UC Berkeley and UC Davis; and UC researchers at campuses in Irvine, Santa Barbara and Los Angeles; and more far-flung institutions such as the University of Illinois at Champaign-Urbana and MIT.

Nanotechnology research there spans a variety of

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i.want ads

Due to the high quantity of ads and space limitations, these want ads have been abbreviated. For the complete ad listings, refer to the internal Website: http://www-r.llnl.gov/pao/news/ wantads.html or for the latest pdf download and retiree information, see the external Website: http://www.llnl.gov/pao/employee/. Please note that these ads appear on the Web.

Date of ads: Approx. Aug. 21 to Aug. 28. Ads appear on the Web for seven days.

AUTOMOBILES

1998 Subaru station wagon. \$8,600. Legacy Outback. 54K miles, 5-speed manual transmission, AWD, 4-cyl, 2.5 L engine, metallic green. 925-918-0367

2000 Honda. S2000. \$17,500 obo. Only 32,500 mi, good - excell. condition, silverstone metallic. Garaged with upgraded stereo. 209-604-3624

 $2000\ lzusu$ Trooper 4x4. $\$6,000\ OBO$. Great condition. $88,000\ miles$. The Kelly Blue Book value is around \$6,200. 209-712-1436

2002 VW Jetta 1.8 Turbo. \$12,000 OBO. Super clean car, very good condition, Under full VW warrenty until March 2008. 58k miles. 510-652-1994

2002 VW Jetta 1.8 Turbo. \$12,000 OBO. Owner relocating to Europe in Sept., very good condition. 58k miles. 510-652-1994 (b): 925-424-4076(w)

2002 VW Jetta GLS 1.8T. \$12,000 or best offer. 510-652-1994 or 925-424-4076

2004 Ford Taurus. \$8,000. SES - 4dr sedan, V6, new tires, 44K miles. Good condition, reliable, comfortable car. 925-294-9651

2004 Honda Accord EX. \$13,500. 4cyl, 4 dr, 5 spd auto, leather, , 6 cd in dash, 97,000 miles. Excellent mechanical and interior condition. 209-834-8079

2004 Mini Cooper. Yellow/black. \$15,600. 4-cyl. 1.6 liter, black bonnet stripes, ~62,000 miles, 5 speed manual. AC. sunroof. 925-980-9462

2004 Mitsubishi Eclipse Spyder GTS convertible. \$17,500 (obo). Off-White. Excellent condition , air conditioning, cruise control. 925-699-4251

2004 Toyota Corolla. \$11,000 S, 4 dr coupe, auto, power locks & windows, 70K miles, am/fm/cd 707-747-5425

2004 VW Golf Turbo. 1.8L 2 D, loaded, 61 Kmi, excellent condition, gray, automatic. 925-454-1439 or 925-330-1931

2005 Ford Escape XLT. \$18,500. V6 3.0, liter, AT, 4WD, 25K miles, loaded, excellent condition. 209-835-6261

2005 Honda Accord LX. \$11,500 OBO. Automatic. Mint condition, great commuter car. 60,000 highway miles. 925-584-1612

2005 Pontiac GTO. \$27,000. 19,000 miles, 6.0L aluminum LS2 364 c.i. engine 400 horsepower & 400 ft. lbs torque -16/21 mpg, 925-963-9882

2005 Volkswagen Jetta GLI 1.8L turbocharged. \$17,000. 4 cylinder, 180 HP, 6-speed manual transmission, 209-568-6200

2006 Honda Accord ExV6. \$23,500. Excellent condition top of the line model with tinted windows, sunroof, heated power seats, 925-525-5913

92 GMC Vandura customized van. \$2,800 OBO. <74K original miles, custom interior 925-980-0120

Electronic pet fence. \$169. Never used, in the box, Innotek premium rechargeable in ground system with 1000' (2 spools) of wire. 925-785-4680

Rims. \$250. For Dodge and Chrysler vehicles: American Racing 16" rims 5-lug pattern. Excellent condition. (925) 292-8810

Saturn. \$3,300 OBO. 1999 SL2 4-door sedan,109,000 miles, power windows and locks, CD, cruise control, alloy wheels, AC, excellent condition. 925-519-3003

BICYCLES

24-in. boy's mtn bike, helmet and lock. \$50. Blue and yellow, 18 spd., Magna Great Divide DH1 series 608-354-5535

Bike. \$50 OBO. 18" 21 speed Excitor mountain bike. Index shifting, center pull brakes, front shocks, excellent condition. 209-632-8313

Miyata 54cm touring bike. \$300. Model 615, 54cm touring bike. 18 speeds, Shimano components. Includes rear rack. 925-454-0877

Women's Huffy bike. Great for the Lab. \$50. Red and fades into purple. Nice white-wall tires too. Great condition. 209-568-6200

BOATS

 $14\hbox{-ft. aluminum boat with 15 HP outboard.} \$2,150 OBO. Two-stroke outboard motor. Comes with oars, 2 fold seats, 6 gallon gas tank. 925-245-1414$

1988 Bayliner. 19ft. cuddy cabin w/sleeper & toilet \$3,500 OBO. 135 hp 4 cylindar volvo, ski, fish, low hours, dual batteries, am/fm cassette. 209-814-9301

Fishing boat . \$1500.00/OB. 209-824-5727

Hollowform Kayak. \$250. 13-foot tough resilient, roomy (compared to play boats) ABS river touring kayak. 925-961-1517

ELECTRONIC EQUIPMENT

Sony Trinitron TV with 500 watt Sony surround sound. \$750. 5 speakers with stands, in great condition, beautiful picture. 209-568-6200

Athlon 750 Mhz, 20g, 128MB desktop computer. \$60. 20G hard drive (wiped clean-no operating system), 128MB ram. 925-337-5622

CAMERA-Canon PowerShot. \$100. Image stabilization. 10x optical zoom, 3.2 mega pixels. Includes 128 MByte memory card. 925-455-0515

Computer. \$30. E 500, needs hard drive. 925-735-6002

Iomega CDRW, external drive like new. \$25. With software, paid \$80, don't need it. 209-914-2132

Lexmark printer. \$20 OBO. X83 color ink printer/ scanner/copier with manuals and software, works well. 925-449-5481

New Nikon green laser pointer. \$100. High quality bright beam. 925-455-4484

Playstation II Slim. \$130. With two controllers, all the cords, two games, Starwars Battlefront 2, Grand Theft Auto Vicecity. 209-874-3724

Vintage 50s guitar with case. \$400. Rare Kay accoustic electric guitar, beautiful original condition with original 2-tone case. 209-914-2132

GIVEAWAY

Rockwell table saw. 12-inch with stand and side extensions. Makes some cuts but limited in others. 925-961-1517

Telescope bag. Orion padded bag (18" ID, 45" long) new condition. 925-846-1525

Wet suits, 2, black, old style, zippers, diaper w/twistlocks. Good condition. 925-998-2048

Household

Baby furniture. \$400. Bellini crib with mattress and three- drawer dresser. Both pieces are in excellent condition. 925-989-7196

Baby gate . Safeway Model G20c. \$40. This 30.5-inch-tall that expands from 24.6 to 43.5 inches wide 925-997-1568

Baby items. \$75. Crib bedding and matching accessories. Unisex (blue & yellow) star and moon theme crib sheet. 925-683-1047

Beautiful solid wood ladder bookcase. \$145. 925-640-5469

Bed. \$200. Queen-size waterbed with bookcase style headboard and six drawer pedestal. Includes "waveless" matterss. heater, 925-371-0507

Child's trundle bed. \$70. Oak finished. 3 drawers. Self-standing head/shelf piece. 88'' (L) with head/shelf piece and 40'' (W). Good condition. 925-373-6230

Children's desk/study area. \$125. With shelves & task lighting. Steel ball bearing side mounted drawer slides. White laminate. 925-373-6230

Coca-Cola collection. \$75. Includes: Men's XL Atlanta Olympics jacket, 1 serving bowl, 1 serving dish, salt/ pepper shakers, 10 mugs, more. 209-568-6200

Computer desk. \$190 OBO. Tower, American-made, oak, w/2 drawers + file drawer, 60"x25", exc. cond.

Furniture. Twin bed set. Excellent condition. Includes Sealy mattress set, like new; dresser with mirror; nightstand. Paid \$1,500. 925-373-2830

Glass and wood cabinets. \$100. I have two of these to sell. They are in great condition. Made of unfinished pine, white melamine and glass. 209-568-6200

Little Tikes picnic table. \$10. Located in Livermore. 925-454-0877

Mirror .\$20/BO. 24-in.-by-36-in. with gold frame. 925-447-2905

Pool table. \$1,995.Custom oak with slate top; designed as huge dining table and seats 8, includes solid oak cover. 925-443-3066

Retro dish set with red cherries. \$40. Includes: 2 canisters, 4 mugs, 1 napkin holder, salt and pepper shakers with holder, 1 fruit bowl. 209-568-6200

Roll top desk. \$500. Oak Crest . Two-pedestal desk

constructed of solid oak and oak veneers. Desk is in like- new condition. 925-443-1279

Table w/chairs. \$75. 60"x35" honey pine, casters on chairs. Excel.cond. 925-449-5116

Toy storage bins. \$20. Storage bin shelf unit, 12 plastic bins fit in open shelves, hardwood, 34'' W x 31'' H x 12'' D. 925-447-2508

TV/video cabinet. \$200 obo. Ethan Allen, oak with walnut stain, 36"w X 21.5"d X 50.5"h. Sliding foldaway doors with sliding TV shelf. 925-449-6740

Twin extra long sheets and matress cover. \$15. Pink knit for Dorm-size bed. 209-403-4942

Wood and glass display cabinets. \$150 each. We have two of these to sell. They are in great condition. 209-568-6200

LOST AND FOUND

Lost ring in Bldg. 131. A modern SW design ring lost in the vicinity of the 2300 wing on Friday, Aug 17. 2-8942 or 925-895-5112

MISCELLANEOUS

1960's tractor. \$3,000. Fergson model 209 - diesel, bucket, scraper, newer rear tires, needs some work, ran about a year ago. 925-454-1749

37 Disney video collection. \$50. Great collection of VHS tapes. There are 37 total and all are in good shape. 209-568-6200

Baby bottle warmer, day/night, The First Years. \$10. Purchased new for \$39.99. 925-413-2595

Baby bottles and related supplies. \$60. Avent Naturally; eight 4 oz. bottles (\$20); Dr. Brown's Natural Flow baby bottles, and more. 925-413-2595

Baby/Infant Fisher-Price Take-Along Swing. \$20. Good condition; sells new for ~\$65; 925-413-2595

Blower. \$10. Paramount, electric, good cond. 925-447-2508

Books. Naruto novels, Vol. 1-14. \$50. Manga Shonen Jump graphic novels. Story and art by Masashi Kishimoto. 925-455-0515

Champion generator. \$150. With 4000 watt capability, with 8 hrs of use. \$150 209-244-8241

Christmas decor. It's never too early for Christmas.

Engine hoist. \$100. Seldom used, in excellent condition. 925-525-1360

Fuel pump. \$30. Tank unit 925-735-6002

Fun with Dick and Jane DVD. \$4. Starring Jim Carrey and Tea Leoni. Viewed only once, so in like-new condition. 925-876-5188

Halloween costume. \$5. Stewardess Halloween costume has never been worn and is new in the package. Size 10 or smaller. 925-640-5469

Heavy duty pallets. \$20 ea. Four available, perfect for stacking firewood or use for other outdoor projects. $48^{\prime\prime}X40^{\prime\prime}X5^{\prime\prime}~925-413-9879$

Loom. \$1,500. Weaving, 36-inch, four heddle Nilus LeClerc jack loom with weaver's bench, extra shuttles, beaters, special attachments, 925-447-5831

Moving boxes. \$25. Approx. 20. Different sizes, three wardrobe boxes (but only one with bar). 925-964-0534

Plants. \$100. Italian Cypress trees, 18-inch pots, 6.5 feet tall. 925-447-6192

Puppet theater. \$75. New and sturdy. For puppet shows, lemonade stand, general store, more. 925-454-0877

Reunion. Alameda County 4-Hers for an all county reunion from 1955. Sept. 9, noon to 6 p.m., Alameda County Fair Grounds. 925-371-0507 or 925-462-3215

Rolling file drawer. \$35. Two-drawer metal and glass with seat cushion top. 925-640-5469

Shop Smith. \$150. Good condition, manufactured

in the 1950's. Can be table saw, drill press and lathe. Mounted on bench. 925-600-0604

Stroller w/infant car seat. \$65. This is a stroller that has the infant carseat that attaches to it. 209-824-5313

Vintage 1930s purse, rare black leather. \$75. Meeker made, USA, hand tooled 5 pockets, rare and in beautiful condition., 209-914-2132

Motorcycles

2003 500 polaris predator ATV. \$3,000. White 2004

plastics with blue powdercoated frame in great condition. 209-825-6311

2004 Yamaha R6. \$6,800. Limited edition, silver with black flames, 1477 miles, excellent condition. 925-337-3633

2005 Yamaha Raptor 350 (Quad). \$4,200. In excellent condition with very low hours and many extra G.Y.T.R. plus more. 925-625-8795

Dirt bike. 2002 Yamaha YZF 426, excellent condition. 925-443-1149 or 510-919-3095

Motorcycle. \$5,300 obo. 2002 Buell "Thunderbolt" \$3,15k miles, hard saddle bags, form-fitted suitcases, multiple storage areas. 925-443-1149

Motorcycle. \$450. 1988 Kawasaki 305 LTD, black, "sportster type." 408-263-2846

PETS

40 gallon saltwater aquarium. \$450. Includes stand, 20000 K metal halide/vho combo lights with external ballast, 30lbs of reef rock. 707-254-5120

Boxer puppies. \$550-\$650. Flashy boxer puppies, fawns and whites with black masks, full collars. Dewclaws and tails docked. 209-847-6283

Free lovable kittens, friendly 6-week olds. Box trained. White & tabby w/ green eyes. 209-304-3775

Male boxer for breeding wanted. Pick of the litter 209-632-8313

Miscellaneous pet supplies. Pet carrier (\$25), bed (\$15) and house (\$30) for large dog. Dog house and bed were never used. 925-243-0111

Pet fence. \$169. Never used, in the box Innotek premium rechargeable in ground pet fencing system with 1000' (2 spools) of wire. 925-785-4680

RECREATION EQUIPMENT

Fold-out seat. \$12.2 person double wide, blue fabric, exc cond, with carry bag. 925-447-2508

Golf pull cart. \$10. Targa 2000, aluminum, good cond, water bottle holder, 1 different wheel. 925-447-2508

Pool table. \$1,995. Custom oak with slate top; designed as huge dining table and seats 8, 925-443-3066

Salomon skis with Salomon bindings. \$50 OBO. Moving sale items: Boogie board, \$25; croquet set, \$20; stand-alone patio umbrella, \$75; kayak, \$250. 925-487-9405

Tent. \$50. Blue rip-stop nylon, floor area 6'x6', mosquito netting, wt. 6lbs, Packed length 24", excellent condition. 925-998-2048

RIDESHARING

Carpool. Modesto to Lab, need a 4th driver/ rider. 9-80s, 7 a.m. to 4:30 p.m. 2-9102 or 209-848-0365

Clayton/Concord carpool. Three people looking for fourth. Arrives 7 a.m., departs 4 p.m. 5 days/week. Drivers rotate using personal vehicles. 925-209-8880

Ride share. \$160. Leaving Montclair at 7 a.m. Leaves Lab at 5:30 p.m. One stop at Joaquin Miller exit. Call for a possible stop on 580. 4-6215. 510-531-4399

SHARED HOUSING

Need housing. LLNL employee needs local housing. Adult, male, no cats. 702-299-5159

Room available. \$500. Large, furnished with private bath. Tracy, near mall, responsible Male prefered- 209-612-2840

Room for rent. \$600. Livermore, bedroom, prv bath, close to Lab, incs utilities, no smk/no drugs/no pets, \$200 dep. 925-292-0681

Room for rent. \$650. 1 mile to LLNL. 1/3 water. Student and short term ok. Free internet. 925-784-7148

Room for rent. \$700 mo. w/ bath. Located close to Lab in nice area. Non-smoker, no pets. Pool, kitchen and laundry priv. Comcast. 1/3 P.G.E. 925-447-6301

Room for Rent. Tracy. 1/3 utilities, unfurnished, Comcast, full privileges, quiet neighborhood. \$450 per month. 209/835-8249

Roommate wanted. \$600+.5util. Looking for a male room mate to share a 2 bedroom apt off of East ave. (Ironwood apts) 707-254-5120

Shared housing, \$1,100. Pleasanton. Private bed & bath. All priv/utl included. Garage parking, pool/spa. 925-321-0753

TRAILERS

Trail Lite camping trailer. \$18,999. Cable & sataliteready with space for DVD and aux boxes. AMFMCD surround sound, 209-612-3104

Desert Fox. \$18,500 OB. 2004 toy hauler trailer. All options including fuel station, 4k watt Onan generator, outside speakers and lights. 925-516-8339

H&H box trailer. \$5,300. 2005 7X12 ft, top of the line. low miles, checkered floor, chrome rims, spare tire, etc. Please leave message. 925-373-8244

TRUCKS

1986 Nissan 4X4. \$3500. Great tires, utility box and great body. 209-470-4179

1998 Dodge Ram 1500 Quadcab 4X4. \$9,800 OBO. With custom lift. has pw/pl, cruise control, infinity sound system w/am/fm/cd/cassette, 925-876-5588

2002 Toyota Tundra limited access cab 4D. \$16,000 OBO .Very low miles, only ~59k, 2 wheel drive, beige exterior color, 209-944-9020

2004 Nissan Titan SE crew cab 4WD. \$19,000. 42,000 miles, 5.6 LV8, 925-516-2774

VACATION RENTALS

Big Island Hawaii Kona coast vacation home. 415-

Cabin. \$225/wknd. Near Pinecrest Lake, off Sonora Pass Road, 3 bdrm/2 bath w/pool table, large deck, and view up No. Fork of Tuolumne 925-449-6613

Long Barn cabin. \$150/week. Cute little get-away cabin in the mountains just 10 minutes before Pinecrest. 209-914-4979

Maui, HI Kahana Reef oceanfront .1BR/1BA condominium. Beautiful two-island (Molokai and Lanai) view. 925-449-0761

SOUTH LAKE TAHOE CHALET. 3 bedroom, 2 bath, nicely furnished, newly remodeled kitchen, comfortable, all amenities, quiet area. 209-599-4644

Taboe vacation rental. \$700/wk. South Lake Taboe.

Tahoe Queen & lake. 925-556-9511

Wine country rental. \$150/night. Monte Rio - vacation wonderland - in the heart of the Russian River valley.

Country cottage with 3 bedrooms, 925-513-4767

WANTED

Aircraft. For restoration, dismantled OK, early model
Ercoupe Cessna 140TD with metal wings, Luscombe

Auto work . Need work done on a Tercel '93 transmission. 925-735-6002

aire 8A Milt. 707-962-0309

Big screen TV repair person. 2000 "Sony" TV. The convergance needs repair. 925-783-0473

Coins wanted. Looking for your unwanted silver coins (1964 and older). U.S. coins preferred but will consider all foreign coins. 925-422-3794

priced to replace. 925-709-1794

Men's bicycle. Up to \$100. Want to purchased used bicycle for 6'3" tall male. Does not need to be too

IPOD(s). Cheap. Lost both daughters' IPODS and a

digital camera on vacation. Interested in used, cheap

Microwave wanted for college student. Preferrably free. 209-403-4942

fancy, 510-209-1386

Moving boxes. Getting ready to haul moving boxes to the dumps? I'd love to take them off your hands. Thanks! (I live in Livermore) 925-454-9224

Rapid Rewards pass wanted. Looking for a Southwest Airlines pass for an upcoming weekend trip. 925-323-8223

Special needs babysitter Responsible college or high school student needed to babysit 15-year-old boy with autism 2-3 afternoons a week from 3-6 p.m. Great pay. 443-3396 (evenings)

Television wanted. In excellent condition, for dorm room. 209-825-6063

Toy Hauler trailer. Looking for a gently used hauler, with bedroom. Please contact me if you are interested in selling. 925-998-3769

Truck wanted. Anyone with 2001 to 2006 extended cab or quad cab for sale. 925-245-1414

Welding books, welding equipment, supplies. 925-

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PEOPLE NEWS

ALL NANOTUBES, from page 5

structures ranging from dots, wires, and pores enhance biocompatibility, the nanotubes to tubes. Nanotubes have potential medical utility by serving both as structural material and a delivery system for drugs. Their unique electrical and optical qualities have also generated interest in novel or improved applications in sensing, microelectronics and optics.

Bahadori and her mentors are especially enthused about beginning to tap the promise for applied research that merges the mechanical and medical, blending unique properties of nanometer-sized structures with living systems in a way that could potentially alleviate human suffering. Besides Chahine, Bahadori also worked with post-doctoral fellow Nicole Collette, in the Biosciences and Biotechnology Division in the laboratory of Gabriela Loots, Ph.D., a molecular and cellular biologist experienced in developmental biology. The group first extracted and cultured cartilage cells from cow joints. Bahadori then grew the cells in agarose gel that contained a suspension of the black, powdery nanotubes for scaffolding, and subsequently subjected the composite disks to biomechanical tests. To potentially

were pre-treated with either a coating of carboxylic acid, which is already present in cartilage, or chemically inert polyethylene glycol. The cells grew better in the neutral environment. However, the resulting network was not as dense, according to Bahadori's final mechanical tests.

She said the internship offered a chance to "utilize all the knowledge I had so far built up and get more functional, so I will be able to transfer all this knowledge to someone else. I wanted to make the most of the learning in a real research environment; it makes me more comfortable and confident."

Following up Bahadori's studies, Chahine would like to try using bone marrow, adult stem cells from cows, or perhaps mice, to regenerate cartilage on nanotube scaffolds. She envisions ultimately using carbon nanotubes not only for physical support, but also to release growth factors to guide cartilage development and deliver drugs to treat inflammation or other conditions.

Chahine said Bahadori was a perfect match for the project. In addition to her coursework in cell and molecular biology, she earned a degree in chemical engineering, and worked in

computers and high technology. Her training includes a degree in chemical engineering from Middle East Technical University in Turkey, as well as work in computers and high technology in the United States. That background allowed her to rapidly pick up and apply interdisciplinary concepts.

"The beauty was I ended up in a project that combines both science and engineering,' Bahadori said. "The more I got into it, the more I liked it."

She was very excited for the opportunity to put her coursework into practice in the Aspiring Science Teacher Research Internship, a joint pilot project between the Laboratory, CSU and UC.

Besides conducting Laboratory work, participants in the eight-week program heard weekly presentations on issues in science education. Like the Laboratory's roughly 600 summer interns, they also were welcome to attend other research seminars. "That was fantastic too," Bahadori said.

"No matter where I go or what I do," Bahadori said in the last week of her internship, "I will always carry with me the excitement and experience of working with career researchers in this emerging field.'

In memoriam

Mirek Valenta

Mirek Valenta of San Ramon, a Lab retiree who worked as an analyst in the Procurement Department, died Aug. 13. He was 78.

Born in Holice, the Czech Republic, April 24, 1929, Valenta graduated from the Academy of Commerce in Holice in June 1949. A short time later, he was captured under communist rule and sentenced to eight years of hard labor in southern Bohemia. On the way to the labor camp, the transport vehicle overturned in an accident, allowing him to escape and cross the border into Bavaria. There, he attended Masaryk University doing post graduate studies.

In 1951, Valenta immigrated to Australia and attended the University of Victoria in Melbourne. He moved to Sydney, Australia in 1956 and later received a master's degree from the University of New South Wales.

He enjoyed golfing, designing, building and fixing anything he could, and spending time with his grandchildren.

He leaves his wife of 49 years, Yvonne Valenta; daughter Suzanne Simonich and her husband Jeff; son Michael Valenta and his wife Mary; and four grandchildren.

Services were held in Walnut

John Gofman

John Gofman, a former director of the biomedical research division at LLNL during the 1960's, and an advocate for nuclear safety, died Aug. 15. He was 88.

Gofman was born in Cleveland. He graduated from Oberlin College, and received a doctorate degree in nuclear and physical chemistry from UC Berkeley in 1943. He went on to earn a medical degree from UC San Francisco in 1946.

He joined UC Berkeley in 1947 and retired as professor emeritus of molecular and cell biology in 1973. He authored several books about the effects of radiation.

In his earliest work, while still a graduate student at UC Berkeley, Gofman studied nuclear isotopes and helped to describe several discoveries, including protactinium-232, uranium-232, protactinium-233 and uranium-233. He also helped to work out the fissionability of uranium-233.

In the late 1940s and '50s, he conducted research

in cardiology and with his collaborators investigated the body's lipoproteins within the bloodstream.

During the 1960s, as a nuclear chemist and doctor, he heightened public concerns about exposure to low-level radiation and became a leading voice against commercial nuclear power. He helped start a national inquiry into the safety of atomic power.

While at Livermore, he and a colleague, Arthur Tamplin conducted research on radiation's influences on the human chromosome, later suggesting that the federal safety guidelines for low level exposure be reduced by 90 percent. During the 1970s, he became an expert witness in radiation-exposure lawsuits and founded the advocacy group, The Committee for Nuclear Responsibility in San Francisco.

Gofman is preceded in death by his wife Helen Fahl Gofman, a pediatrician, who died in 2004. He is survived by a son, John Gofman, an ophthalmologist, of Bellevue, Wash.

Newsline

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For an extended list of Lab beats and contacts, see http://www.llnl.gov/pao/contact/

NEWSLINE August 31, 2007

Lab's FY08 salary review process gets under way

The salary review process kicks off today and is scheduled to continue through mid-November. Employees will receive their salary notification from their supervisor between Oct. 31 and

Non-exempt employees will see increases reflected in their paychecks on Nov. 9. Exempt employees will see increases in their Nov. 16 paychecks.

As in prior years, the Compensation Increase Plan (CIP) proposal submitted to the University of California and the Department of Energy was based on a comparison of the Laboratory's average salaries to market averages for similar jobs as reported in market surveys.

Both UC and DOE review the Laboratory's CIP request. Due to transition, there was an additional discussion with LLNS. Final approval comes from DOE.

The table at right outlines the salary program allocations for

Compensation will host employee briefing sessions in Bldg. 361, room 1140, on the following dates:

| Tuesday | Sept. 4 | 3:30 – 4:30 p.m. |
|-----------|---------|-------------------|
| Wednesday | Sept. 5 | 7:30 – 8:30 a.m. |
| Thursday | Sept. 6 | 12:30 – 1:30 p.m. |

More information on the FY08 salary program is available on the Compensation homepage at http://www-r.llnl.gov/ahrd/ cbwp/compensation/annual_salary_program.php (in order to view/ download the files you must have Livelink access).

For more information about how this year's program will be implemented within your directorate, contact your supervisor.

FY08 salary program allocations

| 7 1 0 | | | | | | |
|---|------------------|--|--|--|--|--|
| Salary structure | Merit allocation | | | | | |
| A&S Admin Services (Axx) | 2.4% | | | | | |
| A&S Administrative & Specialist (ADS.5) | 2.0% | | | | | |
| A&S Audit (Bxx) | 2.0% | | | | | |
| A&S Business Systems & Analysis (Exx) | 2.6% | | | | | |
| A&S Counterintelligence (Kxx) | 5.9% | | | | | |
| A&S Facilites Exempt (Nxx) | 2.4% | | | | | |
| A&S Financial Services (Cxx) | 4.2% | | | | | |
| A&S Health & Safety Exempt (Pxx) | 2.4% | | | | | |
| A&S HR & Training (Hxx) | 5.1% | | | | | |
| A&S Legal (Dxx) | 5.4% | | | | | |
| A&S Procurement/MD (Fxx) | 2.2% | | | | | |
| A&S Pub/Arts/Relations (Gxx) | 4.2% | | | | | |
| A&S Security (Jxx) | 5.9% | | | | | |
| Administrative Management (MGT.1, MGT.2, ESX.0) | 2.0% | | | | | |
| Non-exempt Admin (400s) | 3.5% | | | | | |
| Scientist & Engineer (200s) | 2.1% | | | | | |
| Security (05x) | 2.7% | | | | | |
| Technical (300s) | 2.3% | | | | | |
| Technical (500s) | 5.5% | | | | | |
| Step structures | | | | | | |
| Facilities (800s) | 2.0% | | | | | |
| Machinists (900s) | 2.0% | | | | | |
| Security (Sgts & CAS) | 3.4% | | | | | |
| All structures will receive an adjustment allocation to address promotions and equity issues. | | | | | | |

A Day on the Green



JACQUELINE McBride/Newsline

(From left) Julie Moffet and Karen Cassell receive henna stamp tattoos from Swetha Mehendi at Wednesday's 'Day on the Green' celebration at Lake Haussmann. "Joining hands to celebrate cultures across the Laboratory," was this year's theme. Employees braved high temperatures to enjoy the educational displays, activities and ethnic food at the Lab's annual multi-cultural festival sponsored by the Work-Life Center and Employee Affinity Organizations.



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